

FEATURES

6 Conservation You Can Do Nature needs help, and even kids can pitch in.

12 Wild Workout

Getting fit is fun when you unleash your inner animal.

CREATURE FEATURE

10 Bald Eagle

Pull out this poster and tape it to your wall to make your room look wild.

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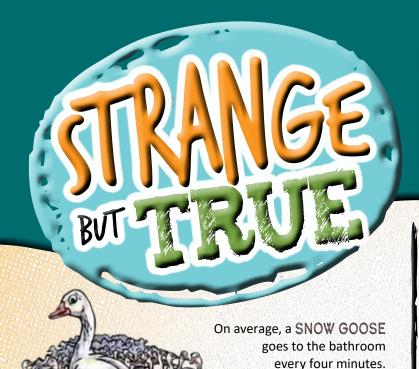
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ON THE COVEREastern Gray Squirrel

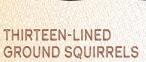
by Noppadol Paothong



Your guide to all the VNV\$VAL, VNIQUE, AND VNBELIEVABLE stuff that goes on in nature

Many WOODPECKERS
have crazy-long tongues
that they use to probe inside
hammered-out holes. The tongues
are needle-sharp — perfect for
skewering bugs — and barbed at
their tips so dinner can't wiggle off.

Some of Missouri's oldest living trees are EASTERN RED CEDARS growing in untouched corners of the state. Several are nearly 900 years old, which means they sprouted more than 600 years before the United States became a country.



spend more than half their lives hibernating. The drowsy squirrels crawl into their burrows in October, fall deeply asleep, and don't wake up until April.



With literally millions of snow geese in existence, these super

poopers leave tons and

tons of droppings.

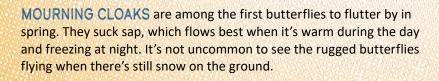
GREAT HORNED OWLS

don't give a hoot about cold weather. The hardy hunters start nesting in January, earlier than any other bird in Missouri. Their eggs can survive temperatures of 10 degrees below zero.

Female bunnies want brawny boyfriends.
To show off,
EASTERN
COTTONTAILS

box and bite each other. Sometimes, one of the flopeared fighters will leap high into the air and try to kick his opponent in the head.







DON'T KNOW? Jump to page 21 to find out.

WHATI ISD)

- My head is topped by a crest.
- 2 And I always dress to impress.
- My stout beak puts seeds to the test.
- 4 And I sing with high-spirited zest.





Hi! I'm Phi, Xplor's mail possum. I know a lot about nature. If you have a question, email me at AskPhi@mdc.mo.gov.

Q: Can groundhogs really predict the weather? — From Allie Rae, age 8

A: In October, groundhogs curl up in burrows to hibernate. They begin waking in February and spend more time aboveground as the weather warms. Legend says if a groundhog sees its shadow on February 2, we'll have six more weeks of winter. But that's nonsense! America's most famous furry forecaster, Punxsutawney Phil, gets it right only four out of ten tries. You'd have better luck flipping a coin! Whatever a groundhog sees that day, it's a safe bet the groggy guy just wants to go back to bed.



HERE'S WHAT YOU NEED

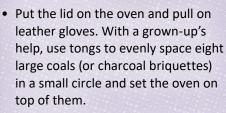
- 1 package yellow cake mix
- · 2 cans of fruit pie filling
- · 1 can of lemon-lime soda
- 4 tablespoons of butter
- 12-inch Dutch oven
- · Lid lifter for Dutch oven
- · Heavy-duty aluminum foil
- Spoon for serving
- Extra-long kitchen tongs
- Thick leather gloves
- Charcoal (optional)

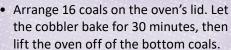


HERE'S WHAT YOU DO



- · Let a campfire burn down to glowing orange coals or light a pile of charcoal.
- Line the inside of the Dutch oven with aluminum foil. This will make cleanup much easier!
- Spoon pie filling into the bottom of the oven. Layer cake mix over the top. Flake butter over everything. Pour in the soda, but don't mix the ingredients.





- Leave the top coals on the lid and bake for 15 more minutes or until the cobbler turns golden-brown.
- · Let the cobbler cool for 10 minutes - IF YOU (AN WAIT THAT LONG!











GONSIBILITION

Conservation is a big word for a simple idea. It means taking care of nature so kids like you — and your kids and their kids and all who come after — can explore a fall forest, fish in an Ozark stream, or watch an eagle soar over a foggy marsh. Conservation means leaving nature better off than when you found it. Here are a few things you can do throughout the year, by yourself or with a

grown-up, to give nature the boost it needs.





Bash Some Trash

Pick a trail or wild place near your house and promise to keep it trash-free for the rest of the year.



Feed Your Feathered Friends

Birds search for seeds all winter long. By February, pickings are slim, and feathered foragers welcome an easy meal. Setting up a bird feeder is a great way to keep your beak-tipped buddies happy and flappy. For tips on where to put your feeder and what to fill it with, fly over to short.mdc.mo.gov/ZCS.



Recycle Your Christmas Tree

After the holidays, strip your Christmas tree of ornaments and tie a concrete block to its trunk. Ask a grown-up to help you drag the tree onto a frozen pond. (Don't walk on ice unless it's at least 8 inches thick!) When the ice melts, the tree will sink and become a place where fish can hide from predators, rest in safety, and raise their babies.



Stack Some Sticks

Brush piles are like critter hotels.
Cozy crannies between branches offer "rooms" where rabbits, sparrows, and other animals take shelter. To build a brush pile, ask a grown-up to cut down branches. Stack the thickest branches at the bottom and pile smaller ones on top. Keep stacking until you have a tangly pile about head high and 20 feet wide.



Build a Nestbox

Eastern bluebirds begin raising babies in early March. Make sure they have a home tweet home by building a nestbox. Grab a grown-up to help with construction and download the building plans at audubon.org/news/how-build-bluebird-nest-box.





Plant a Tree Arbor Day, which Missourians celebrate on

> the first Friday in April, is about

appreciating trees. Trees clean the air, keep soil from washing into rivers, provide homes for animals, and offer shade to people. What's the best way to celebrate this leafy holiday? By planting a tree, of course! For tips, branch out to mdc.mo.gov/trees-plants/tree-care.



Leave Little Critters Alone

Late spring is when baby animals start turning up in backyards. Keep your pets inside so they can't harm these easy-to-catch critters. And if you find a baby bird, newborn bunny, or small fawn, leave it alone. It isn't abandoned. Mom's probably hiding nearby and won't return until you leave.



Pesticides are chemicals used to kill weeds and pesky insects. But they also harm good plants and helpful insects like bees and butterflies. This spring, ask your parents to spray fewer pesticides or avoid using them altogether.

swallowtail

Prevent a Crash Landing

Glass is often invisible to birds, and up to a billion die each year when they fly headfirst into windows. Most crashes occur during spring migration. To prevent them, paint a picture on the outside of large windows. Use washable tempera paint, which

is long-lasting but comes off with a damp sponge and some scrubbing.

Beware of Speed Bumps

In April, box turtles trudge across roads to look for mates and places to lay eggs. You can help them make it across safely.

First, make sure it's safe to be on the street. Then, pick up the

martin

turtle by the back of its shell and carry it to the side of the road in the direction it was going. Afterwards, wash your hands with soap and water.





Free Your Fish

If you don't intend to eat your catch, release a fish carefully so it has the best chance to survive. If possible, don't take a fish out of the water. If you must, wet your hand before handling it. Don't squeeze the fish too hard, and never put your fingers in its eyes or gills. If the fish has swallowed the hook, don't remove it. Cut the line instead.

Bee Helpful

Bumblebees are VIBs — very important bugs! They carry pollen from flower to flower, which helps plants make seeds. But some of Missouri's bumblebees are in trouble. You can help biologists learn how they're doing in your area by counting bees for the Missouri Bumblebee Atlas. For details, buzz over to mobumblebeeatlas.org.

Count Some Quail — and Turkeys, Too

Northern bobwhites and wild turkeys are two of the Show-Me State's best known birds. To keep track of their numbers, biologists need folks across Missouri to count them. To learn how to help, flock to mdc.mo.gov/wildlife/wildlife-surveys.

Northern bobwhite



Adopt a Stream

Streams are nature's blood vessels, and about 110,000 miles of water-filled arteries flow through Missouri. Join a Stream Team to check water quality, pick up litter, improve habitat for aquatic critters, and nurse sick streams back to health. For details, flow over to mostreamteam.org.

Grow Native

Common

eastern

Bees, butterflies, and other pollinators are disappearing in alarming numbers. To bring back the buzz, plant native wildflowers in your yard. Native plants are adapted to Missouri's weather, they need less water, and they provide the best food for wildlife. For ideas about what to plant, flutter over to grownative.org.





SKY PIRATES

Eagles often steal prey from other animals and even snatch fish from anglers and ducks from hunters.

WIND-WHIPPING

WINGSPAN
With wings that stretch
farther than the height of
your bedroom door, an
eagle can soar for hours or
pluck up fish with ease.

POWERFUL PEEPERS

Although their eyes are about the same size as yours, an eagle can spot a rabbit from 2 miles away.

NOT BALD

Bald eagles aren't bald.
Adults have white feathers
on their heads, while young
eagles have brown feathers.



WILD WORKOUT

Wild animals are the world's best athletes. They have to be strong, fast, and flexible to survive. If you've spent the holidays hibernating, maybe it's time to unleash your inner beast. Get moving, get fit, and have fun with these animalinspired exercises.

DOWNWARD DOG

When they wake from a nap, coyotes like a good stretch. You can warm up the muscles in your legs and arms with this pose.

Start on your hands and knees. Lift your knees and tuck your toes against the floor. Push your hips backward to straighten your arms and legs, so your body makes an upside-down "V." Take 10 slow, deep breaths and then lower your knees back to a crawling position.



HUMMINGBIRD HOVER

Hummingbirds flap their wings to hover so they can sip nectar from flowers. Flapping your arms in a similar fashion works muscles in your chest, shoulders, and arms.

Hold your arms straight out at your sides. Quickly rotate your arms, making little circles in the air with your hands. Flap as fast as you can for a full minute. Rest, then do circles in reverse for another minute.



FITNESS FEAT A ruby-throated hummingbird's wings normally flap about 50 times a second.

But during high-speed maneuvers they can flap up to 200 times a second!





FITNESS FEAT

To escape danger or run down fleet-footed prey, coyotes can sprint short distances at a blistering 45 miles per hour. Now that's doggone fast!

BOBCAT BEND

Just like a house cat, bobcats stretch every chance they get. And maybe they're on to something! Bending like Bob makes your back stronger and helps you chill out if you're stressed.

Start on your hands and knees. As you slowly breathe in, lift your head, push your chest forward, and let your belly sink toward the floor. As you exhale, arch your back upward — like a happy cat — and let your head relax toward the floor. Repeat five times or until your stress melts away.





FITNESS FEAT Although a bobcat is only about twice as big as a house cat, the wild feline can leap over 10 feet straight up!

ROLY-POLIES

Holy moly! It's a roly-poly. When threatened, pill bugs curl into a ball. You can do the same to target the muscles in your belly.

Start in a sitting position with your arms held out to the sides, your legs bent at the knees, and your feet off the floor. Lean slightly backward, bring your knees to your chest, and wrap your arms around them. While balancing on your bottom, straighten out your legs and arms. Repeat 20 times without letting your feet touch the floor.







FITNESS FEAT Like their lobster and shrimp cousins, rolypolies breathe with gills, which explains why they live under logs and in other damp places.



INCH WORMS

An inchworm has legs at both ends of its body but none in the middle. Scoot and scrunch like this wiggly caterpillar to work muscles all over your body. Start by standing upright. Bend forward and place your hands on the ground. Keep your feet planted and slowly walk your hands away from your body until you're in a pushup position. Keep your hands planted and slowly walk your feet forward. When your feet are close to





FITNESS FEAT

To hide from predators, some inchworms anchor their back legs and extend their bodies at an angle to resemble a twig. Now that takes some core muscle strength!



AIRBORNE ARMADILLO

Sproing! Nine-banded armadillos spring straight up when startled. Mimic this movement to get stronger, burn calories, and build endurance.

From a standing position, squat down and put your hands flat on the floor in front of your feet. Lock your arms and kick your legs backward. While keeping your back straight, bend your elbows to lower your chest to the floor. Push up. Hop your feet forward to return to a squat. Jump! Repeat this series of movements 10 times or see how many you can do in a minute.











BEAR CRAWL

Black bears lumber around to search for berries, acorns, and insects to eat. Crawling around like a bear is sure to make you hungry because you'll use nearly every muscle in your body.

Start on your hands and knees. Lift your knees off of the ground, keep your back straight and your body low. Crawl forward by moving your left arm and right leg at the same time, then your right arm and left leg at the same time. Crawl for a full minute, rest, and repeat five times.





FITNESS FEAT Though they look chunky, black bears can reach speeds up to 30 miles per hour and climb 100 feet up a tree in seconds.



FITNESS FEAT Armadillos can leap 4 feet into the air when frightened. This gives the armored animals a jump on hungry predators, but it doesn't work so well for dodging cars.

SUPER SQUIRREL

To glide, a flying squirrel stretches out furry flaps of skin between its arms and legs. Pretend you're a squirrelly skydiver to make your back and belly stronger.

Lie facedown with your legs straight and your arms stretched out in front of you. Slowly raise your arms and legs off of the floor. You should feel your back muscles get tight. Hold this position while you count to five. (Be sure to breathe!) Repeat 10 times.





FITNESS FEAT With a lofty launch site and a strong tailwind, flying squirrels can glide nearly 200 feet about as far as five school buses parked end-to-end.

SOARING EAGLE

Eagles stretch out their wings to soar through the sky for hours. You can make the muscles in your belly, back, and arms sore (in a good way) with this exercise.

Lie on your right side with your legs extended. Tighten the muscles in your belly, back, and hips. Breathe out and push your body up so your knees, hips, and chest are off the ground and form a straight line. Lift your left arm up so your body forms a "T." Bring your left arm down, wrap it around your body, and lift it up to form a "T" again. Do five soars, then flip over (so your left side starts on the floor) and do five more.









WOOD DUCK WADDLE

On land, wood ducks waddle to get from place to place. Try waddling for a while to make your legs stronger and burn up extra energy.

Crouch down into a squatting position and hold your arms in front of you for balance. Stay in a low squat as you take four steps forward and four steps backward. Keep your back straight and move only your legs. Repeat five times.



Newborn wood ducks may waddle for over a mile while following mom from their nest to water.









BULLFROG HOPS

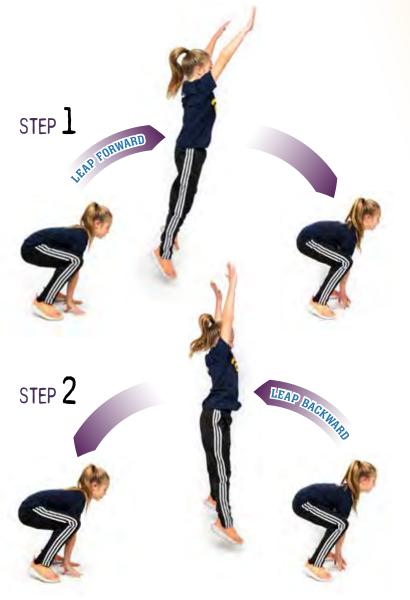
When startled, American bullfrogs squeak out high-pitched yelps and leap quickly to safety. Mimic their motion to make your legs stronger.

Start in a squat with your hands flat on the floor. Leap up and forward then land in a squat. Leap up and backward then land in a squat. Repeat 10 times.



FITNESS FEAT

An 8-inch-long bullfrog can leap over 7 feet in a single hop. If you could jump like that, you could easily leap the length of a school bus.



LIZARDLIFTS

Boy collared lizards do pushups to show off for girl lizards. You can do pushups whether you're a boy or a girl — to make your back, chest, and arms stronger.

Lie on your belly. Place your hands on the floor a little farther out than your shoulders. Place your toes flat on the floor. While keeping your back and legs straight, push up until your arms are extended. Lower yourself down until your upper arms are parallel to the ground, then push up again. Repeat 10 times or see how many you can do in a row. If this version is too uncomfortable, try balancing on your knees instead of your toes.





FITNESS FEAT

When a collared lizard needs to scurry in a hurry, it stands upright and runs on its hind legs. The rapid reptiles can reach speeds of up to 15 miles per hour!

XFLOR MORE

Animal Autographs

MANY OF MISSOURI'S WILD MAMMALS MOVE ABOUT AFTER THE LIGHTS GO OUT.

And though you might miss these nocturnal critters in the flesh and fur, you can see where they've wandered if you learn to spot their footprints.

INSTRUCTIONS This field is covered with footprints! Can you follow each set of tracks to find out which animal made them?

1. _____

Z. _____

3. _____

4. _____

5. _____

6.

7.

8.

q

10



FUN THINGS TO DO AND GREAT PLACES TO DISCOVER NATURE



TRUMPETER SWAN NUMBERS PEAK

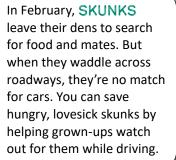
in Missouri in mid-January. Head to a wetland for a chance to get a glimpse of these elegant and enormous waterfowl.



House finch

In winter, finches flock to feeders to feast on seeds. Grab a bird guide and a pair of binoculars and see if you can SPOT THESE FEATHERED FRIENDS







named for the waxy red tips of their wing feathers. In winter, they gather to feed on the berries of cedars, dogwoods, and hawthorns. Find a flock by listening for their high, thin whistles. To learn their calls, visit allaboutbirds.org/guide/cedar_waxwing.







A walk in the winter woods is a great time to FIND SOME FAR-OUT FUNGUSES. Look for turkey tail, artist conk, and oyster mushrooms growing on trees and dead logs.





ARTIST CONK: JOSEPH OBRIEN, USDA FOREST SERVICE, BUGWOOD.ORG

Looking for more ways to have fun outside? Find out about Discover Nature programs in your area at mdc.mo.gov/events.



NORTHERN CARDINAL

Birds come in all shapes and colors, but with its punk-rock crest and bold color, it's hard to mistake a northern cardinal. Cardinals live in shrubby thickets in backyards, weedy fields, and forest edges. They eat berries and seeds, which they crack open using stout beaks. In the spring, male cardinals sing cheerful songs from the tops of trees. Females sing on their nests.



Cut out this critter card and take it with you outside. How many of the things on the card can you find?

RED-HEADED WOODPECKER







KICKSTAND TAIL

Woodpeckers prop their strong, stiff tail feathers against tree trunks for balance.

HOME SWEET HOLE

Woodpeckers raise their babies in holes they hammer into trees.

HELMET HEAD

A spongy skull absorbs the shock of a woodpecker's pounding. The brain is packed tightly inside so it doesn't slosh around.

HARDCORE HOARDER

Red-headed woodpeckers hide acorns — in tree cavities, holes in fence posts, and rain gutters — to eat during winter.

GRAY "HAIRED" YOUNGSTERS

Young woodpeckers don't get a striking red head until their second year of life. Until then, their heads are gray.

To subscribe, cancel your subscription, or update your address, visit

mdc.mo.gov/xplor.

FREE TO MISSOURI HOUSEHOLDS



Look for red-headed woodpeckers along forest edges and in savannas, city parks, and backyards. For more on this boldly colored bird, fly over to mdc.mo.gov/field-guide.

